

BOOK REVIEW ROUNDTABLE

Etel Solingen

Nuclear Logics: Contrasting Paths in East Asia and the Middle East

Princeton: Princeton University Press, 2007

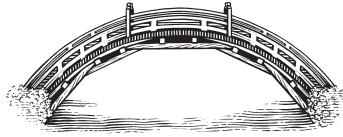
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Muthiah Alagappa (ed.)

The Long Shadow: Nuclear Weapons and Security in 21st Century Asia

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Proliferation Logics and Our Nuclear Future in the 21st Century

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Both of these valuable books offer country-specific case studies bracketed by more broadly analytical framing essays, but Etel Solingen's *Nuclear Logics* is as much a work about international relations theory as an examination of the cases she presents. *Nuclear Logics* uses its case studies to test specific theories of state behavior against each other in an attempt to explain instances in which countries in East Asia and the Middle East have eschewed, or indeed abandoned, nuclear weapons programs. Solingen critiques traditional approaches to understanding such decisions, makes a case for models in which domestic political dynamics help explain behavior, and offers her own explanatory framework to help explain not only individual national examples but also the differences in overall regional nuclear weapons "trajectory" between a seemingly rapidly arming Middle East and a still (mostly) weapons-free East Asia outside of China.

The Long Shadow, edited by Muthiah Alagappa, is less broadly theoretical, offering a series of separately authored case studies that provide assessment and analysis of the perspectives that today's nuclear weapons possessors in Asia (here rather broadly construed to include the United States, on account of the enduring U.S. role and alliance commitments along the Pacific Rim) bring to the issue of nuclear weapons policy. Alagappa's introductory and concluding essays wrap these individual cases together, providing overall context and a lucid interpretation that highlights the continuing salience of nuclear weapons in the approaches that most of these countries adopt toward national security.

Between them, these two books offer the reader valuable perspectives on the proliferation and nuclear weapons dilemmas of the 21st century. Interestingly, neither volume has much of anything to say about Europe, a continent that has seen its share of governments both abandoning nuclear weapons programs and maintaining sophisticated nuclear arsenals for long periods of time. It might be too much to infer that Europe is not a particularly interesting or important region from the perspective of how nuclear policy debates will play out in this new century, but the conclusion is tempting.

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Neither broader issues of nuclear disarmament nor those of proliferation are likely to be resolved or much advanced in Europe itself. European diplomats and national leaders may or may not play significant roles as the international community struggles with these challenges, but the locus of both the main problems and the possible solutions arguably lies elsewhere—in the wide swathe of territory stretching from North Africa across the Asian land mass to the Korean Peninsula, upon which these books focus their attention.

Nuclear Logics

Solingen's book is the more ambitious of the two, insofar as *Nuclear Logics* suggests a theory of how countries make decisions about whether to engage in nuclear weapons development. On the way there, she offers closely reasoned critiques of other theories of state behavior, specifically traditional "neorealist" structural power perspectives that see state behavior as relatively straightforward responses to strategic stimuli, the sort of "neoliberal" institutionalism that regards international institutions as shaping state perspective and choices, "constructivist" understandings that stress the constraining effect of behavioral norms, and "democratization" theses that view behavior through the prism of regime type.

It is hard not to agree with Solingen that, as applied at least to nuclear proliferation decisions, these theories do indeed suffer from significant weaknesses. In Solingen's analysis, these difficulties are both theoretical and practical, insofar as both different outcomes among seemingly similarly situated countries in her case studies and logical weaknesses internal to some of the theories examined together strongly suggest the need to give more attention to domestic political models of behavior. When multiple pathways could plausibly be defended as the "obvious" response to strategic dilemmas (the problem of neorealist "equifinality"), for instance, or further explanation is needed of how the mere existence of purported international norms actually translates into specific choices by national elites, one must unpack the baggage of "the state" in order really to understand what is going on.

Solingen looks to internal political dynamics for this answer. She persuasively explains why it is necessary to abandon assumptions regarding the homogeneity of state-security interests in favor of analyses that look to issues of regime security and survival, and to internal struggles between various domestic constituencies for influence over the levers of power. In so arguing, Solingen offers a rebuke to nonproliferation policies that focus principally upon supply-side issues such as the availability of specific

technological capabilities (pp. 30, 249). One cannot ignore the demand side of the equation, and her approach looks to what makes governments choose to pursue nuclear weapons by examining what competing domestic elites stand to gain or lose in the process.

Solingen's thesis is that domestic elites representing constituencies predisposed toward outward-looking political and economic strategies tend to disfavor the pursuit of nuclear weapons because proliferation brings with it costs in terms of economic isolation and geopolitical instability—costs that threaten the outward survival strategies of these elites. By contrast, elites favoring inward-looking policies (e.g., import substitution models or simply autarky) tend to be more inclined toward nuclear weapons development, and more willing to turn in that direction as a tool for helping consolidate state power.¹

The relative strength of inward-looking versus outward-looking elites within a political system, Solingen contends, helps explain not only the individual country choices she offers as case studies but in fact also accounts for the broad differences in overall nuclear trajectory between the Middle East and East Asia. In the former region, inward-looking or internationalizing domestic models have tended to prevail, whereas in the latter, governments—with the notable exception of autarkic North Korea, which would seem to prove the rule by being East Asia's "problem child"—have generally pursued export-oriented, outward-looking models eager to take advantage of the opportunities presented by globalization.

Solingen's theory about the political economy of proliferation decisions is thus an important contribution to the literature and should be—as she seems to anticipate—a valuable guide to further research. It is, however, a somewhat frustrating contribution from a policymaker's perspective. Her critiques of more commonplace theoretical models for explaining nuclear choices are quite valid, but *Nuclear Logics* does not, in fact, offer a full-blown replacement for these theories. Her explanatory model is not, at the end of the day, a general theory to explain proliferation choices, for Solingen admits that inward/outward elite orientation is by no means an infallible guide to country behavior. To some extent, in fact, all one can say is that her theory applies

¹ Single-commodity economies such as the oil-rich bureaucratic baronies of the Middle East present a somewhat more complicated case, for their export-focused strategies are in one sense hard to describe as "inwardly" focused. Nevertheless, Solingen groups them in the troublesome proliferation-prone "inward-looking" category on account of the association of elite power with large state bureaucracies and formidable military-industrial complexes, and of the apparent tendency for petroleum industry development and clientelistic politics to crowd out the development of pro-globalization constituencies in the broader economy. See, for example, pp. 296–97.

except to the extent that it doesn't apply—which will vary from case to case. At best, her approach is only probabilistic. Some internationalizing leaders may embrace nuclear weapons, whereas many inward-oriented leaders may shun them. Nor is it even necessarily the case that the other behavioral models she critiques always fail to explain behavior even within the ambit of her study: different analytical approaches may explain different decisions at different times (p. 52).

Moreover, in the future, “different dynamics could be at work, triggering conditions under which internationalizing models may no longer provide sufficient conditions for continued denuclearization” (p. 286). After all, this book only discusses proliferation choices in the “second nuclear age.” She hints that entirely different rules may have applied in the first era of nuclear weapons development, for that period predated both the advent of the “rapidly-integrating global political economy” and the establishment of the nuclear nonproliferation regime in the 1960s (p. 24). A third nuclear age—which could be beginning now, for all we know—might not look anything like what Solingen describes in *Nuclear Logics*.

So while Solingen's work is certainly quite valuable in highlighting the need to “disaggregate domestic effects” in understanding national-level choices (p. 299), and in pointing to inward/outward elite orientations as yet another factor to consider in assessing potential proliferation behavior, it offers no grand theory. This is not really a criticism, however, for Solingen's failure to claim the discovery of some sort of “unified field theory” of proliferation decisionmaking shows both modesty and intellectual integrity. As she freely admits, most arguments in the social sciences are similarly probabilistic (p. 286), and the refusal of *Nuclear Logics* to offer inerrant criteria for explaining and predicting proliferation behavior simply bespeaks honesty in struggling with staggeringly complex issues of causality in a complicated world. Solingen repeatedly offers suggestions for future research informed by her insights into potentially important factors, and scholars of international relations theory would be remiss not to take up her challenge.

Solingen's command of detail—in a solely authored book that discusses not merely a broad theoretical literature in international relations but case studies of nine very different countries—is impressive, but *Nuclear Logics* does not avoid some lapses. She is, for example, a bit quick to denigrate the explanatory power of rival theories through seemingly contradictory argumentation. In dismissing neorealist explanations for the continued non-nuclear status of Japan, Taiwan, and South Korea, for instance, Solingen downplays the significance of U.S. alliance relationships in meeting those countries' security

needs through “extended deterrence” (pp. 252–55, 259–60, 278–79). On the other hand, where her point is to dismiss the explanatory power of constructivist approaches, Solingen contends that broad international norms against nuclear weapons poorly explain these countries’ decisions because of the importance of U.S. extended deterrence in allowing them simply to substitute U.S. nuclear weapons for their own (p. 268). (This is ultimately a pragmatic decision, she notes, and cannot easily be ascribed to any norm-driven objection to nuclear weaponry *per se*.) It is not entirely obvious how both of these lines of argument could be true. Nor is it clear how she could simultaneously posit both that there is little evidence that the nuclear nonproliferation regime has affected national decisionmaking (pp. 262, 264) and that the advent of this regime was a watershed significant enough to help divide today’s second nuclear age from all that came before (p. 24).

The attentive reader might also notice that while Solingen is sometimes appropriately cautious about appearing to endorse tendentious readings of the Nuclear Non-Proliferation Treaty (NPT)—referring carefully, for instance, merely to “the *presumed* right to acquire nuclear technology for energy purposes” (p. 41, *emphasis added*)²—she occasionally lapses into an uncritical acceptance of claims that deserve more scrutiny. It was disappointing, for example, that she seems to accept the allegation that the five NPT-recognized nuclear weapons states are in violation of Article VI of the treaty (pp. 31, 39, 272, 299). Similarly, she seems to assume, without offering evidence or argument, that a ban on fissile material production for nuclear weapons purposes would be “verifiable” (p. 298). To say the least, these are claims with which some experts—among them this reviewer—do not agree.³ Solingen’s casual acceptance of such contentions stands out in contrast to the careful and rigorous analysis she brings to evaluating so many other arguments about nuclear weapons proliferation and its causes.

In her concluding section Solingen offers a number of policy recommendations informed by her political economy theory of proliferation choice. These include “reward[ing] natural constituencies of internationalizing models,” such as by promoting internal economic reforms, privatization, export promotion, and the development of domestic human rights constituencies

² In her Iran case study Solingen recounts that Tehran has tried since the mid-1990s to invoke Article IV of the NPT to justify its pursuit of dual-use nuclear technologies (p. 171).

³ See, for example, Christopher A. Ford, “Debating Disarmament: Interpreting Article VI of the Treaty on the Non-Proliferation of Nuclear Weapons,” *Nonproliferation Review* 14, no.3 (November 2007): 402; and Christopher A. Ford, “The United States and the Fissile Material Cutoff Treaty” (paper presented at the Conference on “Preparing for 2010: Getting the Process Right,” Anancy, France, March 17, 2007) ≈ <http://www.state.gov/t/isn/rls/other/81950.htm>.

(p. 293). “The stronger these constituencies become,” Solingen avers, “the less willing they will be to bear the economic, social, and political consequences of nuclear programs and the external instability that they often induce” (p. 294). One should also, for instance, “strip[] autarkic or inward-looking regimes of the means to concentrate power,” including by targeting sanctions and other pressures against inward-looking institutions and constituencies (pp. 295–96). And one should “[u]se democracy—where available—as an ally of denuclearization,” such as by highlighting the opportunity costs of nuclear programs from the perspective of domestic constituencies interested in economic reform and development (p. 297).

These recommendations are sensible, as far as they go, but do not actually go much beyond current U.S. policy—though of course Washington has for some time been quite ahead of most other governments in such things as promoting globalization, imposing financial sanctions aimed at what Solingen would call inward-looking proliferation-prone elements in Iran or North Korea, and encouraging democracy and human rights constituencies in troublesome potential-proliferator regimes. Solingen’s insights will be thin gruel for anyone looking for new and profound guidance about how to deal with today’s proliferation challenges and prevent the emergence of more tomorrow. This is not really a criticism of her theory, however; there is no rule saying that a valuable theoretical insight will necessarily make current problems miraculously soluble with available policy tools. Nevertheless, by way of more dramatic recommendations about how to deal with pressing current problems, Solingen’s theory might be read to imply one rather eyebrow-raising policy conclusion: that the only immediate way to reverse an unfavorable domestic balance between inward- and outward-looking elites is to bring about regime change. She does not herself go so far, however.

As a theory of state behavior, Solingen’s political economy explanation to some extent begs the question it purports to answer. It is a fundamental assumption of her model that nuclear weapons programs bring significant costs and risks upon outward-looking constituencies, not simply as a result of the raw expense of weapons development, but also because proliferation leads to increasing isolation and pressure from other states. This is the key to why she says internationalizing elites tend to disfavor nuclear weapons: “actors seeking access to international markets, capital, investments, and technology, fear potential losses accruing from leaders’ violation or defiance of NPT commitments which invite possible sanctions” (pp. 40–41). The existence of differences in nuclear weapons policy preferences between inward- and outward-looking elites depends on there being unfavorable “economic,

social, and political consequences [to] nuclear programs” (p. 294).⁴ Solingen’s model is essentially incoherent unless this is so: “Violation or defiance of NPT commitments” must “invite possible sanctions,” in other words, or the logic of *Nuclear Logics* collapses.

The fact that proliferation will bring such consequences, however, is itself the result of foreign policy choices that need to be explained. The isolation costs on which Solingen’s model relies are the aggregated product of decisions made by many governments around the world. These choices are clearly in some sense the result of policy preferences against nuclear weapons proliferation, but this preference, in turn, requires explanation—for example, by some neorealist, neoliberal/institutionalist, normative/constructivist, or other theory. It is not clear what Solingen’s own theory would say, or even could say without circularity, about the origins of the proliferation policy preferences that create the bedrock conditions for her explanation of the origins of proliferation policy preferences.

Whatever implications this has for the broader solidity of Solingen’s domestic survival model, the fundamental policy lesson of *Nuclear Logics* would seem to be that if the international community wishes to fight proliferation, it needs to ensure that pursuing nuclear weapons entails very high isolation costs. Only if such costs obtain will outward-looking elites stand to lose enough to make them, in anticipation of such losses, oppose the efforts of inward-looking elites to travel down the nuclear road. (And while Solingen recommends encouraging and promoting outward-looking constituencies in potential proliferator states, her logic requires both that such support end when proliferation is discovered or strongly suspected and that it be clear beforehand that this will occur. If outward-lookers do not themselves face the likelihood of suffering from their country’s pursuit of nuclear weapons, Solingen’s model has nothing to say.) This is not a shocking insight, though it is true enough. U.S. officials, for instance, have been calling for years for much more effective international compliance enforcement pressures to help return violators to compliance with nonproliferation obligations and to deter future would-be proliferators from following in their footsteps.⁵ For those of us who have made such calls, Solingen’s apparent support is certainly welcome.

⁴ The two groups are distinguished by their differing “tolerance[s] for domestic and international, political and economic (including opportunity) costs entailed by nuclear weapons” (p. 275).

⁵ See, for example, Christopher A. Ford, “Compliance Assessment and Compliance Enforcement: The Challenge of Nuclear Noncompliance” (remarks to the American Branch of the International Law Association, New York, October 22, 2005) ~ <http://www.state.gov/t/vci/rls/rm/57091.htm>.

The Long Shadow

The “long shadow” in the title of Muthiah Alagappa’s book refers to the myriad ways in which, in his account—bolstered by the empirical evidence of his authors’ case studies—nuclear weapons lie behind and shape a broad range of security issues in Asia. For readers steeped in the conventional wisdom of present-day policy discussions related to nuclear weaponry, some of his conclusions may be startling. They are, however, plausibly enough supported to command attention.

To summarize, Alagappa’s study depicts nuclear weapons as playing an enduring, and even increasing, role in Asian security relationships. Though “not the only or even primary factor driving strategic vision and policies,” nuclear weapons, he argues, are “becoming a crucial component of national security policies and postures of states in the Asian security region” (pp. 479, 484). They provide what Alagappa calls “general” deterrence for many countries by “prevent[ing] anyone from thinking seriously about attacking” well before the point at which specific attack plans need themselves to be deterred (p. 83; see also p. 78). Japan, for instance, is described as feeling that the strategic salience of nuclear weapons is growing. Tokyo is said to wish to increase the credibility of (and its own consultative role regarding) the U.S. nuclear umbrella upon which its own general deterrence in large part rests (chapter by Michael J. Green and Katsuhisa Furukawa, pp. 347–48, 359, 365–67; Alagappa, pp. 482, 503). (Russia is another example of a country for which nuclear weapons have become increasingly important, though it presents a more problematic case, as discussed below.) Nuclear weapons are not at center stage of Asian strategic security as they were during the Cold War, but their importance is great (pp. 487, 508, 536).

Significantly, moreover, Alagappa’s study describes nuclear weapons as having had an impact upon Asian security that is by no means negative. In fact, he says, “on net they have reinforced national security and regional security in Asia.” They have

ameliorated national security concerns, strengthened the status quo, increased deterrence dominance, prevented the outbreak of major wars, and reinforced the regional trend to reduce the salience of force in international politics. Nor have nuclear weapons had the predicted domino effect. These consequences have strengthened regional security and stability that rest on multiple pillars. (p. 508)

In Alagappa’s description, moreover, new arrivals in the nuclear weapons business have not destabilized the region—at least not yet, at any rate—but have instead behaved rather like the prior weapons-possessors. These new

arrivals are also proving to be themselves deterrable from adventurism, for example, by U.S. military power (p. 514).

Alagappa's conclusions may raise eyebrows among readers steeped in nonproliferation literature that predicts immediate and snowballing catastrophe from proliferation domino effects. His conclusions may also discomfit disarmament enthusiasts who believe that nuclear weapons are intrinsically dangerous and destabilizing in world affairs—and that their complete abolition is, these days, an ever more likely possibility. One would expect, therefore, that Alagappa's conclusions will be contested. Nevertheless, in this volume he ably advances and defends them, making *The Long Shadow* an important contribution to the literature.

Among the specific country studies offered by the authors contributing to the volume, the most interesting cases are the two outliers: the United States and Russia. These cases are outliers because they represent opposite ends of the spectrum in terms of the salience of nuclear weapons in strategic thinking. James Wirtz's account describes U.S. strategic thinking as already having stumbled, in effect, half-way into a post-nuclear paradigm. The Bush administration's Nuclear Posture Review (NPR) of 2001 made an ambitious attempt to articulate a vision of the continuing (but reduced) role of nuclear weapons in the post-Cold War world, but actual U.S. decisionmaking has lagged behind these innovations, and congressional funding has proven unavailable even for key studies of how one might operationalize this vision. Meanwhile, massive reductions have occurred since the end of the Cold War, the military career path for nuclear missions has come to be viewed as an undesirable dead end, unilateral U.S. warhead dismantlement continues apace, nuclear testing has been discontinued since 1992, and the remaining warheads in the U.S. arsenal are aging and may at some point reach a condition of uncertain reliability (Wirtz, pp. 111, 113–21). On balance, to put it crudely, the United States seems to care so little about nuclear weapons today that it is willing neither to adapt its nuclear posture to post-Cold War roles nor even, thus far, to take the steps necessary in order to maintain a credible nuclear force structure of any sort over the long term. No wonder today's Pentagon seems to take nuclear weapons missions so casually.⁶ As Wirtz puts it, “those involved in the U.S. nuclear weapons program today are clearly engaged in a tertiary defense program. Curtis LeMay is rolling in his grave” (p. 114).

⁶ Recent errors and lapses in this regard have caused the military much embarrassment, even leading to the dismissal of the top leadership of the U.S. Air Force. See, for example, Josh White, “In Error, B-52 Flew Over U.S. with Nuclear-Armed Missiles,” *Washington Post*, September 6, 2007, A10.

One could not imagine a starker contrast, therefore, than Yury Fedorov's description of Russia's increased reliance upon and enchantment with nuclear weapons. As Fedorov's chapter posits, Moscow is fiercely attached to the possession of nuclear weapons as the barometer of Russia's great-power status, especially in light of the continuing (though perhaps more recently lessened) decrepitude of its conventional forces. Moreover, Russian strategic doctrine evinces a disturbing fixation on nuclear war-fighting scenarios—including the anticipated early use of tactical nuclear weaponry, and even the alarming notion that using nuclear weapons could help “de-escalate” a conflict—as an answer to semi-paranoid nightmares of encirclement by more capable conventional forces (Fedorov, pp. 134, 137, 141, 143–50; see also Alagappa, pp. 491–92). Needless to say, Russia is also working to modernize its strategic delivery systems (Fedorov, pp. 150–53)—another thing, incidentally, that the United States is not doing. Notwithstanding Moscow's significant overall reductions in nuclear forces since the end of the Cold War, therefore, the current direction of Russia's strategic nuclear policy is disappointing indeed.

The two extreme cases of the United States and Russia thus provide the conceptual bookends for Alagappa's data set: the first apparently providing an example of the gradual disappearance of nuclear weapons as a strategic tool and the latter demonstrating that nuclear weaponry can be a focus of potentially dangerous strategic obsessions even for a major power in the 21st century.⁷ In some sense, the U.S. and Russian exceptions prove the rule that for most of the relevant countries in Asia, nuclear weapons have an enduring but constructive and positive impact in underpinning regional stability and security relationships.

The Long Shadow no doubt offers the reader many lessons, but one bears special mention here. Today's world of nuclear deterrent relationships has lost the characteristics of bipolarity and relative symmetry to which nuclear strategists became accustomed during the Cold War. As Alagappa points out, the study of nuclear security relationships in Asia demonstrates that “nuclear deterrence today operates largely in a condition of asymmetric [overall] power relationships” (albeit generally at low numbers of weapons and delivery systems, at least by historical standards) such that “asymmetry is now the dominant condition for deterrence” (pp. 495–96). For the most part, however,

⁷ These two examples, by the way, demonstrate how mindless and surreal disarmament debates have become in diplomatic forums such as the Conference on Disarmament and the various meetings of the NPT review cycle. Alagappa's volume should be required reading for anyone who thinks that furthering the cause of nuclear disarmament requires jeremiads against U.S. strategic policy and a benign neglect of contemporary Russian developments.

nuclear deterrence theorists lack the conceptual tools to describe and model such asymmetric relationships, especially when involving multiple players. Particularly if U.S. and Russian stockpile numbers fall still further, bringing all nuclear weapons possessors closer to parity in raw numerical terms, we will badly need modeling skills that encompass much more nuanced and elaborate multiplayer games.⁸ Deterrent calculations are complicated further (and also in ways not intelligible through the prism of Cold War–derived game theory) by the modest size of most countries’ nuclear arsenals and the existence of some missile defense capabilities.

Systematically developed models of nuclear deterrence powerfully shaped approaches to nuclear strategy, at least in the West, during the period of bipolar confrontation between the United States and the Soviet Union. Today’s nuclear strategists, however, have yet to provide the conceptual tools with which 21st century leaders might hope to understand and grapple with their strategic environment. It is little wonder, therefore, that Alagappa describes nuclear doctrines and concepts as still being very much “in the midst of change and likely to evolve further” in the countries examined in his book (p. 500). It is certainly encouraging that *The Long Shadow* suggests that nuclear weapons so far seem to have played a generally positive role in Asian security. But it also appears to be the case that no one, including the national leaders responsible, has much of an idea of where things are going next.

Alagappa’s own view of the future is that the global nuclear order that emerged during the twentieth century is essentially obsolete. Asia has “become a core world region,” and strategic competition there is likely to intensify, creating a “new nuclear order” to which prevailing concepts and approaches to strategic policy must accommodate themselves. His recommendations for dealing with this new order are fivefold: (1) sustain deterrence in new conditions and discourage offensive roles and strategies, (2) be capable of accommodating new nuclear weapons states, (3) address the security concerns of potential proliferator states to prevent further spread of nuclear weapons, (4) prevent proliferation to nonstate actors, and (5) support the peaceful use of nuclear energy with adequate safeguards (pp. 510, 535–39). These recommendations are, in truth, somewhat underwhelming, not departing too much from the existing policies of the United States—with the arguable exceptions of the second point, if even that,⁹ and the third point,

⁸ Even Alagappa, for instance, describes country-to-country deterrent relationships only in terms of specific strategic dyads or triads. See, for example, pp. 487–94.

⁹ Alagappa himself seems to think the United States is already well down this road, suggesting that “[t]he U.S.-India nuclear deal must be seen in this light” (p. 536).

though only with respect to Iran. What Alagappa seems to mean is that any lingering conceptions that the global nuclear order is one centered on the Atlantic are what is obsolete; to judge by these recommendations, he does not appear to think that reorienting to an Asian focus requires too dramatic a policy overhaul.

Such conclusions are, however, somewhat at odds with the insights Alagappa himself offers into the fascinating state of flux in which nuclear strategy finds itself today in this transitional phase between bipolar symmetry and multiplayer asymmetries. A bolder agenda, one that is perhaps implicit in Alagappa's discussion, would be for nuclear strategists to embrace the complexity of the 21st century and attempt to build new conceptual models that will enable us to live in the emerging world described in *The Long Shadow*—one in which nuclear weapons are not going away and in which they can actually play useful roles in stabilizing the security environment, provided they are not disseminated too widely.

In this vein, if Alagappa is right about our 21st century strategic environment, we will need better ways of thinking through some important questions. How does deterrence work between more than one participant, with low warhead numbers, in conditions of overall power asymmetry, and in the context of the deployment of some defensive capabilities? How can “extended [nuclear] deterrence” continue to function successfully in augmenting regional security and helping prevent proliferation choices by allies in the context of a shrinking U.S. force structure and palpable disinterest in nuclear missions? How and when might nuclear weapons have an asymmetric deterrent effect against other types of WMD (and perhaps vice versa)? What role can cutting-edge non-nuclear military power play in providing its own sort of asymmetric deterrence (or extended deterrence) against proliferation and against nuclear weapons use itself? Moreover, during the apparently indefinitely long period in which nuclear weapons will continue to exist in multiple countries' hands, what concepts of strategic force structure can help maximize the ability of nuclear weapons to serve whatever functions and roles it is deemed important to preserve.¹⁰ And if nuclear weapons are not going away any time soon, and retain a significant role in underpinning global and regional security, how do we ensure that those few weapons that remain are reliable and can be appropriately safeguarded against theft or unauthorized use?

¹⁰ It is theoretically possible, of course, that inherited Cold War force structures could meet these needs, but it would be a remarkably fortuitous and improbable coincidence if no adjustments at all were needed. Nor, of course, would more recent members of the nuclear weapons “club” be able to rely on such convenient legacy postures in any event.

If such a strategic policy agenda sounds a bit familiar, it should. The U.S. Nuclear Posture Review of 2001 attempted to explore this territory, offering its own answers to some of these questions. As James Wirtz's contribution to *The Long Shadow* makes clear, however, the ideas set forth in the NPR are in some cases current U.S. policy only in the nominal sense: many of them have received little support from Congress, and the NPR has not produced practical results on the ground commensurate with its conceptual boldness (pp. 118–21, 130). Nor, of course, have the concepts outlined in the 2001 NPR been received with great favor, to say the least, by the rest of the international community. In short, these concepts are in no immediate danger of becoming a new strategic consensus and nuclear policy work plan for this new century, and may well be summarily scrapped by the incoming Obama administration anyway.

Nevertheless, *The Long Shadow* suggests that these questions themselves may not go away so easily. As a result, even those who disagree with the specific conclusions reached by the 2001 NPR may in time need to follow it, perhaps uncomfortably, down the road of wrestling with these challenges. Whatever further new ideas or approaches may result from such a thoroughgoing review of strategic policy in light of 21st century conditions, it is likely to become harder than ever to avoid undertaking it.

Path Not (Yet) Taken? Revisiting the Three East Asian Cases

Jing-dong Yuan

Nuclear proliferation constitutes one of the most serious threats to international and regional security. This is particularly the case in the post–September 11 world, where a number of issues—nuclear terrorism, active and covert pursuit of nuclear weapons capabilities by some states, and new regional and international security environments in which the role of nuclear weapons in national defense is being redefined—are becoming increasingly salient for policymakers and analysts alike.

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Two timely and well-researched volumes provide fresh insights into some of the critical variables affecting the decision of states to either acquire or renounce nuclear weapons. The two volumes also offer interesting perspectives on the role of nuclear weapons in the 21st century both for nuclear weapons states and for non-nuclear weapons states, including those that once sought or are currently seeking to acquire nuclear weapons.

Etel Solingen's *Nuclear Logics: Contrasting Paths in East Asia and the Middle East* continues and expands on a seminal article she published in *International Security* almost fifteen years ago by re-examining the underlying rationale behind which states either pursue, forswear, or renounce nuclear weapons. Critiquing the neorealist understanding of the motivations for nuclear weapons as too deterministic and at best incomplete, she offers new insights into the explanatory power of domestic variables and explains how coalition formation and leadership interests in closer integration into the global economy help to prevent states from acquiring nuclear weapons. On the other hand, for those leaders who reject such a path and who exercise tight controls and authoritarian rules, the pursuit of nuclear weapons becomes a means for regime survival.

Analyses of nuclear proliferation typically identify three major reasons as to why states pursue nuclear weapons: insecurity, prestige, and bureaucratic politics.¹ An anarchical international system—where states resort to internal or external balancing to ensure survival—offers a most powerful explanation of state behavior, including the pursuit of nuclear weapons. Indeed, states pursue nuclear weapons because they face serious security threats and their ability to defend themselves through conventional armaments is either insufficient or too costly. Nuclear weapons therefore offer an attractive alternative as a force equalizer in situations where asymmetries of power balances exist.

Solingen sets out to challenge this conventional wisdom by first identifying anomalies in neorealist theory where nuclear policy is concerned, i.e., why states facing similar security dilemmas have chosen to adopt different policies and why not all of these states embrace the nuclear option. In East Asia such anomalies are quite pronounced: Japan, South Korea, and Taiwan have all faced serious security threats but nonetheless have decided

¹ See, for example, Zachary S. Davis and Benjamin Frankel, eds., *The Proliferation Puzzle: Why Nuclear Weapons Spread (and What Results)* (London: Frank Cass Publishers, 1993); Bradley A. Thayer, "The Causes of Nuclear Proliferation and the Utility of the Non-Proliferation Regime," *Security Studies* 4, no. 3 (Spring 1995): 463–519; and Scott D. Sagan, "Why Do States Build Nuclear Weapons? Three Models in Search of a Bomb," *International Security* 21, no. 3 (Winter 1996/97): 54–86.

to forgo the nuclear option, at least for now. *Nuclear Logics* then proceeds to offer alternative explanations by looking at the insights and arguments of international institutions (neoliberalism), norms (constructivism), democratic peace, and domestic models regarding how political survival affects a state's decision to acquire or renounce nuclear weapons. She argues that domestic factors and considerations, especially the need to have access to international markets, and the political and economic costs of acquiring nuclear weapons provide strong disincentives against the nuclear option. Japan, South Korea, and Taiwan are economies that depend heavily on international trade and investment; they are also dependent on U.S. security protection and therefore can ill afford to alienate Washington.

Thus, even though all three states face significant security threats and are technologically capable of developing nuclear weapons, the outward orientation of their economies, and hence their strong preference for international integration, offers strong incentives for nuclear restraint. The opposite can be said of the Middle Eastern states in Solingen's study: national pride and nationalistic sentiments, regime survival, and inward-looking orientation seem to underlie the suspected pursuit of nuclear capabilities in a number of Middle Eastern countries.

Solingen's comprehensive survey of two critical regions front and center in the nuclear nonproliferation debates as well as her forceful arguments for the need to examine the demand side of the nuclear proliferation ledger and alternative explanations of state policies and behavior deepen understanding of the dynamics of nuclear logics. However, in her critique of the neorealist structural power explanation of why states pursue nuclear weapons, she overstates the case that strong leadership advocacy for closer integration into the global economy leads to nuclear restraint; in so doing, she dismisses other important variables, including the neorealist understanding of security dilemma, relative power, and changing balances.

Take the three East Asian cases of nuclear restraint and renouncement as examples. It is true that all three—Japan, South Korea, and Taiwan—are heavily dependent on international trade, investment, and raw materials. Therefore all of these states have also adopted an export-oriented industrial policy and have been extremely sensitive to the potential political and economic costs of taking the nuclear path. What has motivated them either to give up considering nuclear weapons as an option or to exercise considerable restraint in the face of threats and uncertainty cannot, however, be attributed to their outward orientation alone. There are other important factors to consider as well. What is most important are the utilitarian considerations made when states

weigh various options under different security environments. The fact that all three East Asian states (as well as North Korea) have at one time or another considered or covertly pursued the nuclear option, and moreover may not have completely given this option up, suggests that security dilemmas, threat perceptions, and considerations of international integration have all been important elements in influencing their decisionmaking. One could argue that U.S. reactions, informed by Washington's broader strategic calculations, have played a critical role in dissuading all three from nuclear pursuit both by threatening serious consequences and by strengthening or renewing alliance commitments, including explicit or implied extended nuclear deterrence.

Indeed, this utilitarian analysis of the three East Asian cases is in ample display in the chapters on Japan, South Korea, and Taiwan in *The Long Shadow: Nuclear Weapons and Security in 21st Century Asia*, edited by Muthiah Alagappa. Here incentives for or disincentives against nuclear weapons acquisitions are closely tied to the nature of threats and the dual characteristics of abandonment and entrapment typical of alliances between partners of asymmetrical power attributes. Here the explanations for nuclear restraint and renouncement highlight more prominently such factors as threat perceptions, policy options, and alliance politics.

The Alagappa volume contemplates the broader question of the role of nuclear weapons under the new security environment. The general conclusion is that nuclear weapons will continue to play an important role in national security strategies, especially where deterrence is concerned. To the extent that this remains the case, the volume has important implications for the international community's efforts to stem nuclear proliferation, prevent nuclear terrorism, and strive for a nuclear-free world. With the end of the Cold War and East-West military confrontation, the role of nuclear weapons and their relevance in the national security considerations of the major powers, so far as potential military conflicts among them are concerned, have undergone considerable reassessment and led to significant reduction in the number of nuclear weapons in both the United States and the former Soviet Union (and now Russia). Nuclear disarmament, at least in numeric terms, seemed possible with the signing and implementation of START I and II in the 1990s and the Moscow Treaty in May 2002, with the latter imposing further a lower ceiling on the operational nuclear weapons that the United States and Russia could retain.

The early 1990s also witnessed significant progress in nuclear nonproliferation and arms control, as reflected in the indefinite extension of the Nuclear Non-Proliferation Treaty, the signing of the Comprehensive

Test Ban Treaty (CTBT), and discussion of negotiating a fissile material cut-off treaty. But that rather promising trend was derailed first by the North Korean nuclear crisis of 1993–94, followed by the nuclear tests in South Asia in 1998, the U.S. Senate rejection of the CTBT in 1999, and the second North Korean nuclear crisis that began in late 2002 and remains unresolved today. Iran is suspected of aspiring to nuclear weapons, and the A.Q. Khan nuclear smuggling network has raised the specter of nuclear terrorism. Meanwhile the nuclear weapons states, while continuing adjustments and downward reduction of their nuclear arsenals, are nonetheless pursuing modernization programs in qualitative terms.

Hence, there is a long shadow of nuclear weapons in national security calculations and in defense doctrine and posture, which in turn presents both assurances against and incentives for nuclear proliferation. The Alagappa volume makes a strong case for why nuclear weapons are here to stay, the extent and nature of their role, and how stability can be maintained under such an uncertain security environment. As long as conflicts between states exist, military capabilities differ, and alliances are burdened with the perceived predicaments of abandonment and entrapment, there will be strong incentives to pursue nuclear weapons, especially for weaker states facing serious security threats and lacking recourse to credible external help. This diagnosis of 21st-century Asia has sober implications for the three cases of nuclear renouncement and restraint. As discussed in the relevant chapters of the Solingen and Alagappa books, Japan, South Korea, and Taiwan have chosen the non-nuclear path either because domestic leadership in these states has advocated for greater international integration (Solingen) or as a result either of renewed U.S. commitments to extended deterrence and protection or of threats of severe reprisals should Tokyo, Seoul, and Taipei choose to go nuclear (Alagappa). However, whether these three states continue to remain non-nuclear could well be determined by their assessment of the security environment, their ability to ensure national security, and the resources and policy options available to them. Both the normative foundations and practical considerations in Japan, South Korea, and Taiwan could thus be changed if alliance commitments eroded or appeared to be eroding (especially extended nuclear deterrence, implied or explicit) at the same time that significant shifts in capabilities occurred in favor of states perceived as opponents. In this regard, the Alagappa volume offers a rather sobering antidote to Solingen's more optimistic take on the three East Asian cases. Only time can tell what will turn out to be the final verdict.

Updating the Story

Deepti Choubey

In assessing two major contributions to the debate over nuclear weapons, let me begin by applauding both Etel Solingen and Muthiah Alagappa for their ambitious and *tour de force* treatments of the nuclear decisions of countries in East Asia and the Middle East.

Policymakers' assumptions about the world tend to influence their responses to challenges. From an analytic perspective, these two books are a study in contrasts. *The Long Shadow: Nuclear Weapons and Security in 21st Century Asia* acknowledges alternative analytic frameworks but is primarily influenced by a lens of international politics focused on security concerns and calculations. Lest it be confined to calculations at the level of the state, the book also contains a useful chapter on nuclear terrorism and nonstate actors by S. Paul Kapur. *Nuclear Logics: Contrasting Paths in East Asia and the Middle East* addresses security dilemmas but also benefits from an expanded explanatory model. Solingen considers other factors such as domestic politics, international norms and institutions, and the influence of various forms of government.

Depending on one's framework for understanding nuclear developments, drastically different policy options can appear. Solingen's systematic appraisal of competing theories creates the foundation for alternative approaches to nonproliferation and security policy. Both studies have explored some of these other theories but have come to different conclusions about their overall salience. As such, they demonstrate the ongoing difficulty of applying political science theory to the shifting sands of nuclear decisionmaking.

One of the challenges of reviewing books is the time lag between publication and current events. Since the January 2007 publication of the Shultz, Kissinger, Perry, and Nunn op-ed essay in the *Wall Street Journal* calling for a world free of nuclear weapons,¹ a renewed debate on the desirability and feasibility of nuclear disarmament has begun among U.S. policymakers and influencers on both sides of the political aisle. This essay essentially created a new political context that has been sustained for two years now. This

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¹ George P. Shultz, William J. Perry, Henry A. Kissinger, and Sam Nunn, "Toward a Nuclear-Free World," *Wall Street Journal*, January 4, 2007.

new context bears on the import of modernization programs, the utility of extended deterrence, and efforts to craft a new nuclear order.

James Wirtz's characterization in *The Long Shadow* of disarmament as the "dominant enduring theme" of U.S. nuclear policy (p. 114) is particularly notable. His exposition of nuclear trends highlights the degree to which the international community has been confused about the direction of U.S. nuclear policy. Bush administration officials claim that the 2002 Nuclear Posture Review de-emphasized the role of nuclear weapons in U.S. national security policy. The rest of the world, however, did not interpret the review in the same way. On the one hand, reductions continue to decrease the size of the U.S. nuclear arsenal (whether weapons are actually dismantled or just recategorized is another matter). On the other hand, the Bush administration's modernization plans included more usable nuclear weapons, such as the Robust Nuclear Earth Penetrator (RNEP) and the current effort to develop the Reliable Replacement Warhead (RRW). These activities created ambiguity: was the point to reduce both the number of weapons and their roles, and to develop new weapons for lessened roles, or was the range of possible uses expanded? Congress effectively killed the RNEP, and the RRW in its current form seems to be headed for the same fate. Wirtz's assessment of U.S. nuclear policy touches on disarmament issues and helps put in proper context Alagappa's emphasis on what modernization programs reveal about the role of nuclear weapons for nuclear weapons states.

Too much emphasis on these modernization programs can miss the broader trends of nuclear policy. Steps a nuclear weapons state takes to ban nuclear tests and cease the production of fissile material may be far more revealing about the expected role of existing arsenals than modernization programs imply. For instance, Russia, France, and the United Kingdom have ratified the Comprehensive Test Ban Treaty (CTBT) and no longer produce fissile material for nuclear weapons. Though these states have modernization programs, their disarmament activities should be given more weight in light of the current political context. For instance, although the United Kingdom approved modernizing its nuclear capabilities in 2006, British foreign secretary Margaret Beckett called for nuclear weapons states to take disarmament seriously in 2007. Since then, Prime Minister Gordon Brown, four former defense and foreign secretaries, and numerous cabinet ministers have affirmed that call and proposed concrete steps to create the conditions for

a world free of nuclear weapons.² During his presidential campaign, Barack Obama also supported this vision. I do not mean to overstate the impact of disarmament activities on the overall direction of nuclear decisionmaking. Instead, because a fissile material cut-off treaty could limit the scale of an arsenal and modernization could proceed without testing, modernization programs in and of themselves need not point to an expanded role for nuclear weapons in security policy. Furthermore, if the current political context continues, evaluating its impact on the role of nuclear weapons would be the next step for the research agenda identified by both Alagappa and Solingen. The common vocabulary of deterrence advocated by Alagappa will be crucial to that endeavor.

To that end, Alagappa's exposition of deterrence theories and their applicability to the security policy of various states is extremely useful. Yet the impact of extended nuclear deterrence on nonproliferation may be overstated. Solingen is convincingly skeptical of the influence that this type of deterrence has on U.S. allies and their decisions to forgo the acquisition of nuclear weapons. In the context of a fracturing nuclear order and a nonproliferation regime under stress, the more pressing question may not be how to maintain deterrence, but rather how to build coalitions that establish and enforce strong rules against proliferation. For instance, other states are important not only for shaping the context in which states embarking on proliferation deal with pressures to desist but also for their willingness to join in enforcement. Frustration with the current policies of nuclear weapons states means that convincing non-nuclear weapons states, in particular, to join in a common cause against proliferation will not be an easy task. Moreover, if governments are serious about integrating nuclear armed states that have not signed the Nuclear Non-Proliferation Treaty (NPT) into the nonproliferation regime, again, support from non-nuclear weapons states will be required. The path to achieving that support will require demonstrable progress on disarmament such as de-emphasizing the role of nuclear weapons in national security policies, entry into force of the CTBT, negotiations on a fissile material cut-off treaty, and further stockpile reductions.³ However, allies benefiting from the U.S. nuclear umbrella will need to better appreciate alternative forms of deterrence (e.g., using conventional forces) that may be far more effective in responding to any real crisis or threat. Solingen's conclusion that Japan, Taiwan, and South Korea have "not been as determined

² George Perkovich and James M. Acton, *Abolishing Nuclear Weapons*, Adelphi Paper 396 (London: International Institute for Strategic Studies, 2008), 7.

³ Deepti Choubey, "Are New Nuclear Bargains Attainable?" Carnegie Endowment for International Peace, Carnegie Report, October 2008.

to acquire nuclear weapons as many believe” (p. 253) offers some hope for a constructive evolution of nuclear-related security policy that does not threaten to exacerbate proliferation and therefore peace and security. If U.S. allies reliant on the U.S. nuclear umbrella continue to value economic growth, international competitiveness, and global access, the prospects for moving toward truly de-emphasizing the role of nuclear weapons in national security policies improve.

A chief conclusion of Alagappa’s study is that nuclear weapons have contributed to peace and stability in the Asian security region (chap. 18). Does this assessment hold up against troubling developments occurring between East Asia and the Middle East, such as the suspected nuclear cooperation between North Korea and Syria (and possibly Iran)? In this case, the threat posed by North Korea’s nuclear-acquisition decision may pale in comparison to its active support of and influence on the proliferation decisions of non-nuclear weapons states. Solingen’s assessment of the motivations behind this state-to-state collaboration could illuminate other factors that may bear on Alagappa’s benign view of nuclear weapons.

In this same vein, should we be worried about the effect of the U.S.-India nuclear cooperation deal on Iran’s strategic calculations? Iranian decisionmakers may gloss over the legal distinction between Iran and India vis-à-vis the NPT. However, a lesson Iran might take away from India’s experience with nuclear weapons is that a state can remain outside the regime, develop weapons covertly, and violate international norms by conducting nuclear tests, and within a decade the international community will accept that state. The haste to fashion a new nuclear order that includes one non-NPT nuclear weapons state—India—but does not establish criteria for dealing with Israel and Pakistan, and which devalues the relative benefits that non-nuclear weapons states are supposed to have over non-parties to the NPT, may have adverse consequences for the proliferation decisions of troublesome states. Though a laudable goal, integrating non-NPT nuclear weapons states should not be done in a way that creates even greater inequity in an international nonproliferation regime under duress.


Diversity of opinion is good for policy debate and formation. On the whole, I agree with Alagappa on the need for new security arrangements reflecting a new nuclear order. In light of more recent developments, and keeping stability and security considerations in mind, I disagree with him, however, on the role nuclear weapons can and should play in the medium to long term. Nuclear weapons may currently cast a long shadow, but if trends continue, that shadow may become shorter and lighter.

Two Visions of Nuclear Weapons in Asia

Jacques E.C. Hymans

In 1945 the United States dropped two nuclear bombs on Japan, killing hundreds of thousands of innocent civilians: the most barbaric atrocity of a barbarous war. Ever since that time, there has been no more important challenge for scholars of international relations than to understand the political dynamics that are engendered by the potential for mass killing at the flick of a switch. In recent years, as the world has turned topsy-turvy, the importance of this challenge has re-emerged with new urgency.

Muthiah Alagappa's *The Long Shadow* and Etel Solingen's *Nuclear Logics* take up the challenge with particular reference to the continent of Asia.¹ As both of these authors are powerful voices in the field of international relations, their works command our attention. Pairing them together for review and discussion is a splendid exercise, for Alagappa and Solingen offer very different visions of the past, present, and likely future of nuclear weapons in Asia. The two works do not disagree on every point, but the contrast between them is pronounced and very much worth exploring. This essay will highlight some of the core differences in order to encourage the authors to clarify their arguments, explain how they reached their conclusions, and discuss areas for improvement.

Descriptive inferences  The most basic difference between the two works lies in how they respectively describe the level of attraction of Asian states to nuclear weapons. For Alagappa, “The interest in nuclear weapons in Asia and the Middle East was not diminished by the termination of the Cold War. The new strategic environment, with a dominating United States and a rapidly rising China, provided additional or new impetus for the acquisition and development of a nuclear weapons capability” (p. 6). Alagappa is convinced that no significant state in the region today can fail to have at least some kind of ready nuclear option, whether that option is an indigenous capability, a credible extended deterrence commitment from the United States, or a mix of the two. He concludes, “Nuclear weapons are becoming a crucial component

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¹ Although *The Long Shadow* is an edited volume, Alagappa himself contributes nearly a book's worth of material—approximately 175 pages. While acknowledging the hard work of the volume's many contributors, the present essay focuses on Alagappa's perspective.

of national security policies and postures of states in the Asian security region” (p. 484).

By contrast, Solingen offers her book as a “systematic effort to explain divergent nuclear behavior in the two regions” of East Asia and the Middle East (p. 11). These divergent paths are described in the titles she gives to parts 2 and 3 of her book—“East Asia: Denuclearization as the Norm, Nuclearization as the Anomaly” and “The Middle East: Nuclearization as the Norm, Denuclearization as the Anomaly.”² Thus, Solingen may agree with Alagappa’s observation of an Asian nuclearizing trend when it comes to the Middle East but not when it comes to East Asia. In Solingen’s view, most East Asian regimes have chosen denuclearization not because of a misplaced idealism but rather because their ruling groups have perceived overwhelming “incentives to avoid the political, economic, reputational, and opportunity costs of acquiring nuclear weapons” (p. 5). She argues that these ruling groups would likely still perceive the costs of nuclearization as very high even in the absence of a credible U.S. security guarantee.

It is perhaps relevant to note here the apparent impact on Alagappa’s and Solingen’s descriptive inferences of their respective ontological choices on the fundamental question of what is a region—a topic that each author has considered at length elsewhere. Since Alagappa “treats Asia defined broadly as a single security region” (p. 28), he not surprisingly finds great similarities between the nuclear paths of states from Tokyo to Tel Aviv. Meanwhile, since Solingen sees not one but several Asias, she not surprisingly finds considerable contrasts across different sections of the continent. Indeed, Solingen’s assumption that the dynamics of different parts of Asia are largely autonomous of each other is a crucial underpinning for her claim to be able to carry out a “controlled” and “focused” comparison between East Asia and the Middle East (p. 8) while contending that adding South Asia to the study would have contributed “only residual and potentially confounding effects” (p. 302n19).

Causal theories \approx Alagappa and Solingen offer starkly contrasting causal theories to explain the nuclear choices of states. For Alagappa, “Security interaction in Asia increasingly approximates behavior associated with defensive realism” (p. 509). In other words, Asian states seek to acquire, maintain, and improve their nuclear arsenals primarily because “nuclear weapons reinforce security and stability” (p. 510). Although not

² Readers interested in a more technical discussion of Solingen’s operationalization and measurement of these dependent variables may consult the book review I published in *Perspectives on Politics* 6, no. 3 (September 2008): 648–49.


directly useful in most international relations contexts, nuclear bombs are nevertheless a great deterrent, and states want the “strategic insurance they provide to cope with unanticipated contingencies” (p. 517). The exceptions to this rule are either states that face prohibitively high material hurdles to building the bomb (e.g., Southeast Asian states) or those that can substitute a credible superpower nuclear guarantee for an indigenous arsenal (e.g., Australia, Japan, South Korea, and perhaps Taiwan).

By contrast, Solingen propounds a “political survival” theory of nuclearization and denuclearization. The nuclear paths of the Middle East and East Asia differ, according to Solingen, because most Middle Eastern regimes have pursued inward-oriented models of economic development, whereas most East Asian regimes have pursued internationalizing ones. She pithily summarizes her case as follows:

Inward-looking models approximate necessary if not sufficient conditions for nuclear weapons programs. Internationalizing models are not necessary but likely to be sufficient for denuclearization except under two circumstances: (a) when neighboring inward-looking regimes seek nuclear weapons (or other WMD); and (b) when nuclear weapons were acquired prior to the inception of internationalizing models. (p. 46)

Of particular interest here is the claim that the presence of an internationalizing regime by itself is likely to prove sufficient for denuclearization, unless one of two special conditions applies. This claim appears to challenge the realist perspective embraced by Alagappa.

It is important to note that the two theories rest in part on divergent assumptions about the effects of new nuclear weapons arsenals on international stability. For Alagappa, “Nuclear weapons reinforce the declining salience of the offensive role of force in the Asian security region and increase the importance of deterrence, defense, and assurance” (p. 525). Thus, for Alagappa nuclearization and economic internationalization are, or at least can be, fully complementary policy choices. By contrast, Solingen’s model is premised on the notion that the development of new nuclear weapons arsenals decreases international stability, making such a choice anathema to internationalizers. As she puts it, “Nuclearization burdens efforts to enhance exports, economic competitiveness, macroeconomic and political stability, and global access— all objectives of internationalizing models” (p. 276).

Epistemologies  Both Alagappa and Solingen offer detailed case study research, which they claim overall strongly confirms the correctness of their

causal theories.³ The question is how the two authors could have come to such different conclusions after looking at many of the same cases. To a large extent, the different empirical stories that the two books offer may be due to their very different epistemological starting points.

In Alagappa's view, the overt explanations that states offer for their policy choices are the most important evidence of their thinking. Alagappa "takes seriously the security rationales advanced by states for the development of nuclear capabilities or reliance on those of an ally" (p. 27). Indeed, the very first page of *The Long Shadow* provides a series of quotations from U.S., Russian, Chinese, Indian, Pakistani, Israeli, North Korean, and Japanese official sources, all explaining their nuclear choices in defensive realist terms. Meanwhile, Alagappa warns against the "intellectual (and possibly racial) biases and national strategic interests" that often lie behind analyses that "advance political, status, and bureaucratic arguments as the 'real' reasons underlying the quest for a nuclear weapon capability" (p. 513).

Solingen's epistemological stance is very different. She admits that "leaders are far more likely to cast their decisions favoring or rejecting nuclear weapons as 'reasons of state,' invoking national security, incentives related to international institutions, and normative considerations (for or against such weapons) rather than ulterior domestic political motivations" (p. 46). But this fact, she argues, should only spur scholars to dig for evidence of the real motives that lie beneath the rhetoric. Indeed, "even partial substantiation uncovering an important role for domestic considerations in this 'unfriendly' terrain gains particular significance" (p. 47). Meanwhile, she approvingly quotes the scholar-journalist Leon Sigal's attack on realism as "the secular religion of the foreign policy establishment. Those who want to play a part in policy-making believe in it, or at least pay lip service to it by acting as if they believe in it, even if they do not."⁴

In sum, these two works are in implicit confrontation on many levels, some obvious and others subtle. In light of the considerable tension between their perspectives, Alagappa and Solingen could do no greater service to the readers of this roundtable than to engage each other directly on these points.

³ A few of the case studies in *The Long Shadow* do not conform very closely to the defensive realist perspective. Most notably, the brilliant study of Russia offered in the chapter by Yuri Fedorov highlights the role of organizational and other "low politics" concerns in shaping that state's recent nuclear policies.

⁴ Leon V. Sigal, *Disarming Strangers: Nuclear Diplomacy with North Korea* (Princeton: Princeton University Press, 1998), 249, quoted in *Nuclear Logics* on p. 258.

Author's Response:
Of Theory, Method, and Policy Guideposts

Etel Solingen

I would like to thank all contributors for their insightful comments and am appreciative of the opportunity to clarify some points. To begin with, a restatement of the core argument of *Nuclear Logics* is in order. There are systematic differences in nuclear behavior between states whose leaders or ruling coalitions advocate integration in the global economy and those who reject it. The former seek to gain and maintain power through economic growth via engagement with the global economy; hence, they have incentives to avoid economic, political, reputational, and opportunity costs of acquiring nuclear weapons because such costs impair a domestic agenda favoring internationalization. By contrast, inward-looking leaders incur fewer of those costs because they rely on self-sufficiency, state and military entrepreneurship, and nationalism; they thus reject internationalization and have greater incentives to exploit nuclear weapons as tools in nationalist platforms of political competition. This insight, focusing on competing domestic models of political survival, may be applied to explain the differences between nuclear aspirants in East Asia and the Middle East over the past nearly four decades. East Asian leaders pivoted their domestic political control on economic performance via global integration, whereas leaders in the Middle East relied on inward-looking self-sufficiency, internal markets, and nationalist values. Their respective models created different incentives and constraints, which in turn influenced their preferences for or against nuclear weapons.

I am delighted that none of the reviews in this roundtable seem to dispute the very essence of these claims. Deepti Choubey's clear grasp of the core logic and subsidiary arguments is particularly reassuring. Christopher Ford's praise for the work's intellectual integrity, honesty, and modesty in not claiming a unified field theory of proliferation, given "staggeringly complex issues of causality in a complicated world," is especially generous. I welcome some of the qualifications raised by the reviews as they provide an opportunity to elucidate ancillary arguments developed in the book. I first

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address theoretical and methodological considerations and end with matters of prediction and policy.

Theory and Method

First, it is important to establish the book's precise claim regarding structural neorealist theory and balance of power as a determinant of nuclear choices. There are repeated references throughout the book to this theory's "valuable insights" (p. 27), "natural *prima facie* appeal," and ability to "explain *some* cases reasonably well" (p. 26, emphasis added); there are even references to balance of power as "more relevant than [domestic] political survival in some cases" (p. 18; see also pp. 53, 285). Indeed, to preempt facile readings, the importance of balance of power considerations is emphasized at the very outset (p. 6). At the same time, one of the book's leitmotifs is a warning against overestimation of some theories and underestimation of others. Nuclear outcomes are not the sole perfunctory reflection of international structure or balance of power (see, for example, p. 250); their commonly unquestioned acceptance as the driving force of all nuclear decisions is thus misguided (p. 27). This is particularly so in light of structural neorealism's non-trivial shortcomings: too many anomalies of insecure states forgoing nuclear weapons; an overwhelming majority of states renouncing nuclear weapons despite a world of presumed uncertainty, anarchy, and self-help; elastic and subjective definitions of self-help, vulnerability, and power itself; related concerns with neorealism's falsifiability; and the fact that nuclear umbrellas, though important in some cases, have been neither necessary nor sufficient for nuclear abstention worldwide. To reiterate, this point concerns the imperative to avoid structural determinism. A better understanding of nuclear behavior and outcomes requires theoretical recalibration and a closer examination of competing and complementary perspectives.

Second, theoretical recalibration also compels a proper differentiation between the specific difficulties posed by structural neorealism, in contrast to more sophisticated versions often labeled neoclassical realism. The latter can be entirely compatible with political survival arguments (p. 308n53), attentive to how domestic forces filter external pressures and incentives, including the role of alliances (see, for instance, pp. 21, 26, 52, 259, 301n6, 303n26, 308n53, 348n38). Indeed, *Nuclear Logics* is very attentive to the perception of existential security as an important consideration and a useful category in some cases (pp. 250–51), and includes extensive discussions of security dilemmas in each of the nine cases under study. A proper understanding of perceptions requires

a proper understanding of the factors influencing them and is quite different from putative automatic responses to balance of power that treat human agency as a black box. Deficiencies are mostly inherent in this crude form—a purely structural theory that suffers from indeterminacy, conjures up multiple possible outcomes, does not provide clear markers for likely behavior, cannot predict whether nuclear weapons enhance or undermine security, competes with alternative explanations even in its home court, fails to explain many cases easily or at high levels of confidence and parsimony, and is incomplete in explaining other cases.¹ A crucial Achilles' heel is this theory's inability to determine *a priori* what constitute structural threats or define consequential changes in balance of power, to establish thresholds triggering discontinuities in nuclear policy, or to measure these dynamics over time and across cases. Do threats derive from changes in relative capabilities, from rival states as abstract entities trapped in international anarchy, or from the way that particular regimes interpret and define those changes and capabilities? Do today's Iraqi leaders perceive Iran exactly as Saddam Hussein's regime did? Do today's Japanese leaders perceive an internationalizing China just as they perceived China under Mao's autarky, which entailed no trade or diplomatic relations between the two countries? As has been amply documented, crude neorealist theory leads to indeterminate predictions and invariably requires additional information unrelated to power balances.²

Third, neorealism's shortcomings are particularly significant when it comes to explaining nuclear behavior because they relate to the theory's performance in its home court—highest national security—where it should pass any test without difficulty and with flying colors. One should not need to go any further than structural power to understand nuclear outcomes; domestic politics presumably should not matter at all. Furthermore, there are strong incentives to portray decisions for or against nuclear weapons as dictated by power balances and “reasons of state,” considered more “legitimate”

¹ For assessments of *Nuclear Logics* both as the most comprehensive and systematic challenge to system-level imperatives and as a useful corrective to simplistic and overly mechanistic assumptions that overpredict nuclear proliferation, see William C. Potter and Gaukhar Mukhatzhanova, “Divining Nuclear Intentions: A Review Essay,” *International Security* 33, no. 1 (Summer 2008): 142; Jeffrey S. Lantis, “The Political Economy of Proliferation,” *International Studies Review* 10, no. 2 (2008): 351–53; Michael Vance, “Conflict, Security and Armed Forces,” *International Affairs* 84, no. 1 (January 2008): 152–53; and Ian Shields, “Where Are the Air Power Strategists,” *Air Power Review* 11, no.1 (Spring 2008): 1–5.

² See John Vasquez, *The Power of Power Politics: From Classical Realism to Neotraditionalism* (Cambridge: Cambridge University Press, 1998); Jeffrey W. Legro and Andrew Moravcsik, “Is Anybody Still a Realist?” *International Security* 24, no. 2 (Fall 1999): 5–55; Thomas C. Walker and Jeffrey S. Morton, “Re-Assessing the ‘Power of Power Politics’ Thesis: Is Realism Still Dominant?” *International Studies Review* 7, no. 2 (June 2005): 341–56; and Arthur Stein, “The Realist Peace and the Anomaly of War” (unpublished manuscript, 2005).

justifications than (ubiquitous) concerns with political survival. The available justificatory evidence tends to load the analytical dice in neorealism's favor. Given all those advantages, the inability to easily confirm the theory—even under the best circumstances—compels great caution. None of this deters statements such as those by Jing-dong Yuan, who asserts unequivocally that “as long as conflicts between states exist [and] military capabilities differ...there will be strong incentives to pursue nuclear weapons, especially for weaker states facing serious security threats.” But such statements fail to explain why the overwhelming majority of states—many of them weak, facing external conflict and military imbalances, and without external guarantees (including Vietnam, Singapore, Chile, Egypt, Jordan, and many, many others)—have not resorted to nuclear weapons. As Betts correctly argued, insecurity is not a sufficient condition for acquiring nuclear weapons; many insecure states have not.³ Ignoring such facts leads to analysis that in the past has consistently over-predicted nuclearization. Potter and Mukhatzhanova allude to this long-standing “discrepancy between the popular foreboding of ‘a nuclear armed crowd’ and the reality of an international arena largely devoid of nuclear weapons possessors.”⁴

Fourth, having analyzed conceptual and empirical problems with neorealism and other theories, *Nuclear Logics* also offers ways to improve their leverage. For instance, specifying a priori the precise underlying measures of relative power and thresholds that lead to nuclearization might avoid tautological circularity and *ex post facto* rationalizations (such as “state x went nuclear because of acute insecurity,” whereby the acuteness threshold is detected *a posteriori* by a nuclear test). Sharpening core concepts would help cast the argument in falsifiable terms and would enable more clearly stated testable propositions. Such improvements should include a better specification of when, how, and why hegemonic power (protection or threats) may or may not account for nuclear outcomes. Unalloyed neorealism, however, would continue to be wanting as a theory and as a basis for policy unless it can subsume systemic pressures under domestic models that translate such pressures into diverse outcomes.

Fifth, a careful reading of *Nuclear Logics* belies any imputations of reductionism, as if—aside from political survival—there are no other factors to consider. Such readings fail, as argued, to recognize frequent warnings

³ Richard K. Betts, “Universal Deterrence or Conceptual Collapse? Liberal Pessimism and Utopian Realism,” in *The Coming Crisis: Nuclear Proliferation, U.S. Interests, and Order*, ed. Victor A. Utgoff, (Cambridge: MIT Press, 2000), 51–86.

⁴ Potter and Mukhatzhanova, “Divining Nuclear Intentions,” 142.

against crude mono-causal analysis. The reader would quickly notice that the book's title is not *Nuclear Logic*, as if there is only one, but *Nuclear Logics* (in the plural), suggesting an effort to transcend deficiencies stemming from a singular concern with mechanical balances of power as drivers of nuclear choices. Indeed, the way in which variables interact is explicitly discussed throughout:

[domestic models of political survival] help explain why security dilemmas are sometimes seen as more (or less) intractable, why some states rank alliance higher than self-reliance but not others, why nuclear weapons programs surfaced where there was little need for them, and why such programs were obviated where one might have expected them. Balance of power as well as norms and institutions may be more relevant than political survival in some cases and not others, but, in the aggregate, complete explanations of nuclear behavior must include all relevant variables for particular cases, a consideration that guides the empirical chapters in this book. (p. 18; see also pp. 53, 285)

This leads to the book's crucial point—sometimes sorely missed—that the omission of domestic models as understudied sources of nuclear behavior has important implications:

A “missing” or “omitted” causal variable may lead to an overestimation of other causal variables, granting them too large an effect on the outcome while rendering at least some of their effects spurious....Without taking into account domestic political survival models, one may not properly understand nuclear behavior or estimate the actual effects of balance of power, international norms and institutions, or democracy. *Introducing a previously omitted variable does not imply that other variables are rendered irrelevant, but rather that we are better able to understand their relative impact on nuclear choices.* (pp. 17–18, emphasis added)

All these points are reflected in the nuanced analysis of East Asian cases. The chapter on Japan clearly notes that the compounded effect of the U.S.-Japan alliance, the Liberal Democratic Party's (LDP) model of political survival, the nuclear allergy, and institutional constraints made Japan's non-nuclear status virtually inevitable (overdetermined). Japan thus illustrates a case of equifinality, whereby many alternative causal paths led to the same outcome, making it harder for any single variable to claim unequivocal explanatory dominance. At the same time, the Yoshida Doctrine provided the glue that kept the anti-nuclear package together (p. 80). This is clearly different from mono-causal formulations that either domestic models or the alliance account for outcomes, as Yuan suggests. Insofar as *Nuclear Logics* is concerned, this either/or characterization is misplaced given repeated allusions

to the alliance as a critical component of the Yoshida model, not as an end in itself but as a means to enable concentration on economic growth through global access while avoiding militarization (p. 278). Prominent advocates of a denuclearized Japan could rely on the alliance to advance their position in domestic debates. The nuclear umbrella was thus integral to Japan's nuclear abstention, a decision ultimately forged amid the political and economic requirements, and institutional restraints, of a domestic landscape that trumped nuclearization. This landscape never yielded a strong Japanese demand for nuclear weapons that would have compelled U.S. denial. Ironically, Japan's critical nuclear decisions took place in the 1970s, at the alliance's lowest point, when dilemmas of U.S. credibility and commitment featured prominently in Japan's calculations. Indeed, Nixon and other officials at the time signaled forbearance and perhaps encouragement of Japan's nuclearization—episodes that had the potential of turning the alliance argument on its head by making the alliance a latent source for, rather than a barrier to, Japan's nuclearization. As Premier Sato amply understood—and declassified documents confirm—Japan's domestic landscape was a most effective containment wall.

South Korea bears the marks of stronger U.S. coercion. But here again, one can fully understand the effects of the U.S. alliance and coercion when taking into account Park Chung-hee's domestic survival model. The latter explains why alliance was chosen over autarkic *juche* (self-reliance) in the first place, with ensuing consequences for relative receptivity to external inducements, positive and negative (pp. 254, 279). As Reiss argues, Park aimed at ensuring political stability and economic growth.⁵ The two were symbiotic, leaving little room for nuclearization, which would have endangered growth, political stability, and access to global markets, capital, and technology; alienated domestic support; risked sharp economic decline; and isolated South Korea from the forces—whether regional or international, market or institutional—that underpinned this model. The alliance enabled the model's core objectives while providing protection to South Korea.

Threats to Taiwan could not be more explicitly acknowledged in *Nuclear Logics*, which characterizes the island as a quintessential case of security vulnerability. Taiwan has faced persistent threats of invasion by China, the shock of China's 1964 nuclear test, and general concern over U.S. defense commitments (pp. 103, 279). The book discusses both the considerable U.S. pressures to prevent Taiwan's nuclearization and the evidence of internal

⁵ Mitchell B. Reiss, *Without the Bomb: The Politics of Nuclear Nonproliferation* (New York: Columbia University Press, 1988), 95.

opposition to nuclear weapons within Taiwan (pp. 109–15). Given that such U.S. pressures to dissuade failed elsewhere, *Nuclear Logics* finds it compelling to delve into the domestic landscape that influenced Taiwan's choice to comply where others stood firm. Joseph A. Yager, who described Taiwan's activities as geared to produce a nuclear option rather than weapons, put it succinctly: "The unanswered question is, why did the ROC authorities yield so readily to U.S. demands?"⁶ Political survival arguments are uniquely suited to answer this question. The Kuomintang's (KMT) favored model—which hinged on economic growth, prosperity, and domestic stability—explains widespread receptivity to U.S. demands and inducements. Nuclear weapons would have introduced massive stress at home, regionally, and worldwide, with negative consequences for growth and stability. KMT leaders sought to avoid those outcomes while mustering resources to defeat internal subversion; sustain foreign investment; secure access to preferential export markets, capital, and nuclear technology; and accumulate ample foreign reserves (via exports) to overcome international isolation (pp. 109–16, 279). Maintaining Taiwan's economic miracle required nuclear restraint.

In sum, *Nuclear Logics* devotes ample attention to alliances, "which undeniably played significant roles" (p. 253), but also seeks to improve our understanding of why, when, and how alliances "work." All motives of nuclear behavior are, in the end, filtered through the domestic politics within which decisions are made. The fact remains that in all three East Asian cases, indigenous nuclear weapons would have seriously undermined favored strategies of economic growth, international competitiveness, and global access. The choice for alliance itself was inherently related to the domestic models that favored it over other options, trumping internal demands for nuclear weapons and generating openness to U.S. inducements. The links between commitments to internationalizing models, alliance, and renunciation of expensive nuclear competitions are thick in these cases (pp. 253–54). Choubey accurately interprets these nuances when she argues that "the impact of extended nuclear deterrence on nonproliferation *may be overstated*" (emphasis added). I also agree with much of what Choubey has to say on the role of nuclear weapons and with her statement that "if U.S. allies reliant on the U.S. nuclear umbrella continue to value economic growth, international competitiveness, and global access, the prospects for moving

⁶ Joseph A. Yager, "Nuclear Supplies and the Policies of South Korea and Taiwan toward Nuclear Weapons," in *The Nuclear Suppliers and Nonproliferation: International Policy Choices*, ed. Rodney W. Jones, Cesare Merlini, Joseph F. Pilat, and William C. Potter (Lexington: Lexington Books, 1985), 192.

toward truly de-emphasizing the role of nuclear weapons in national security policies improve.”⁷

The preceding points raise the crucial issue of how generalizable these three cases are. To what extent were they anomalous or typical among post-1968 nuclear aspirants? These were, after all, instances of best practices (alliances that actually worked, strong internationalizing models of political survival); they thus provide easy cases for alliance arguments, most likely to confirm such arguments (and hence not robust tests for this sort of argument). But were these modal or typical conditions for the universe of would-be nuclear proliferators? U.S. and Soviet commitments to North Korea, Pakistan, Iraq, and even France and Britain, among others, did not lead any of these countries to renounce nuclear weapons. Nor did the absence of superpower guarantees preclude decisions to reverse nuclear ambitions in Egypt, Libya, South Africa, Argentina, or Brazil, among others. Too many cases of denuclearization have little to do with successful hegemonic coercion or protection. This is an empirical observation amply discussed in *Nuclear Logics* rather than a policy prescription favoring or disapproving of security guarantees in any particular case. The point is that even the three East Asian cases suggest that the mechanisms of—and relative receptivity to—external persuasion and coercion can be understood only by probing into the domestic conditions that created acquiescence in these cases but not in others. As Waltz persuasively argues, “in the past half-century, no country has been able to prevent other countries from going nuclear if they were determined to do so.”⁸ The crucial issue is explaining where this determination comes from. North Korea enjoyed the war-tested protection of China and the Soviet Union, yet nurtured nuclear designs very early on, well before experiencing severe fears of abandonment brought on by the collapse of the Soviet Union. One cannot understand the insufficiency of alliance commitments in this case without dwelling on *juche*, the Kims’ autarkic model of political survival incepted in the 1950s.

Finally, the effects of the nonproliferation regime must be properly understood by taking stock of what we do know, what we do not know, and how we might add to our knowledge. First, it makes methodological sense to concentrate on the “second nuclear age” to understand nuclear behavior under

⁷ On the methodological inability to conclude that nuclear weapons crucially defined a fundamental stability, or that there would have been wars had such weapons not existed, see John Mueller, “The Essential Irrelevance of Nuclear Weapons: Stability in the Postwar World,” *International Security* 13, no. 2 (Fall 1988): 55–79.

⁸ Scott D. Sagan and Kenneth N. Waltz, *The Spread of Nuclear Weapons: A Debate Renewed* (New York: W.W. Norton, 2002), 38.

a common “world time” marked by the inception of the nonproliferation regime. This procedure facilitates a focus on nuclear decisions while holding constant a potentially important causal variable affecting states’ rational calculus of incentives and constraints. In other words, this concentration on the second nuclear age enables us to gauge variability in outcomes against a common international institutional order. Second, the extent to which that order can explain all or even most states’ nuclear decisions is an empirical, substantive, and as of yet unresolved matter (p. 262). My specific argument here is as follows:

- We do not yet have universal and systematic data regarding all states’ cost-benefit calculations for joining or complying with the nonproliferation regime. Such data, though hard to obtain, could help test theories advancing that the benefits from joining or complying with the Nuclear Non-Proliferation Treaty (NPT) exceeded the costs of negotiation and enforcement for each state. Such empirical evidence has simply not yet been collected for most states but could well end up confirming the theory’s expectations of this sort of nonproliferation regime institutionalist theory (see, for example, pp. 14, 30–31, 49, 266).
- However, for the nine cases examined in *Nuclear Logics*, few provided strong support for the nonproliferation regime as the main determinant for the renunciation of nuclear weapons. Though some cases seemed compatible with this understanding, it was residual or unnecessary in others (pp. 31, 262–67).
- For cases where the nonproliferation regime arguably played some role, the counterfactual must be examined. Had the regime not existed at the time, would Japan’s domestic politics have yielded a different decision? It took Japan seven years to ratify the NPT.
- Decisions favoring nuclear abstention could well have been logically prior to, not a consequence of, decisions to sign and ratify the NPT. The very conditions leading states to sign and ratify—though not always directly observable or measurable—could also explain subsequent compliance better than the nonproliferation regime itself, a methodological problem known as selection bias, which can overstate the effects of treaty obligations (pp. 31, 305).

Predictions and Policy

I appreciate Ford’s praise both for the book’s effort to contend with complex causality and for not offering inerrant criteria for predicting proliferation, particularly because the primary concern of *Nuclear Logics*

was with theory and history rather than predictions and policy. Even so, the concluding chapter—in the section “Will the Future Resemble the Past?”—does explore controlled scenarios stemming from different theoretical assumptions. The political survival framework yields four scenarios—two that would uphold the argument and two that would not. This provides ways for falsifying the book’s theory, identifying scope conditions under which the theory might or might not apply, and recognizing that even theories that do well explaining the past may not necessarily hold for all futures. The characterization of *Nuclear Logics* as optimistic misses the nuance and contingency of these scenarios, which consider the possibility that internationalizing leaders (1) miscalculate and overplay nationalist cards, (2) are replaced by inward-looking, protectionist coalitions more favorable to nuclearization, and (3) become casualties of global recessions and downward spirals, all of which could lead to nuclearization. As of 2008 these circumstances have acquired special relevance, but they were already introduced at the time of writing in 2006 (p. 288), when the global economy looked very different.

Ford correctly argues that the jury is still out on whether or not the theory will work for what he presumes will be a third nuclear age. Few if any social science theories work for eternity, but this one provides as good a guidepost as any available, including scope conditions for assessing its utility. The fact remains that different putative thresholds crossed by North Korea in the last couple of decades, including the 2006 nuclear test, have not led to reactive proliferation throughout the region. As Hughes has suggested on the pages of this journal, echoing some of the themes in *Nuclear Logics*, even a most conservative Japanese premier—Nobusuke Kishi’s grandson, Shinzo Abe—was “forced to clamp down on [the nuclear] debate as a result of increasing domestic criticism” from within the LDP, the LDP’s coalition partner New Komeito, the Democratic Party of Japan (DPJ), and increasingly negative international attention.⁹ Ford also rightly recognizes that *Nuclear Logics* is about harnessing recent theoretical developments to assess specific theories, a purpose made explicit from preface to conclusions. He seems persuaded by the book’s findings, stating that: (1) it is hard to disagree with the thrust of the book insofar as “these theories do indeed suffer from significant weaknesses”;

⁹ Christopher W. Hughes, “North Korea’s Nuclear Weapons: Implications for the Nuclear Ambitions of Japan, South Korea, and Taiwan,” *Asia Policy*, no. 3 (January 2007): 85. For an analysis of Japan’s nuclear developments since North Korea’s 2006 nuclear test, see Etel Solingen, “The Perils of Prediction: Japan’s Once and Future Nuclear Status,” in *Forecasting Nuclear Proliferation in the 21st Century: A Comparative Perspective*, ed. William C. Potter (unpublished manuscript, 2009).

(2) *Nuclear Logics* “persuasively explains why it is necessary to abandon assumptions regarding the homogeneity of state-security interests in favor of analyses that look to issues of regime security and survival, and to internal struggles between various domestic constituencies”; (3) the book’s “critiques of more commonplace theoretical models for explaining nuclear choices are quite valid”; and (4) its claims reveal “careful and rigorous analysis.”

Yet he also laments that *Nuclear Logics* is not a policy book focused on recommendations, finding this “somewhat frustrating...from a policymaker’s perspective,” and one can understand that. He would seem to prefer “an infallible guide” to state behavior (wouldn’t we all?), which neither this nor any other theory can provide. Balance of power—with competing injunctions emanating from the same structural-power landscape—could hardly provide infallible guidance. Consider the cacophony of options the book identifies for Japan in the 1960s under this theory’s rubric: “Japan should acquire nuclear weapons, should not acquire them, should rely on the U.S. nuclear umbrella, should not rely on it, should build extensive conventional capabilities as substitutes for nuclear weapons, could not rely on conventional deterrence, and so on” (p. 63). Are these easy clues for policy? Despite apparent simplicity, policy implications of purely structural theories are far less coherent than is often assumed. The emergence of a consensus in one direction or another is not a result of this theory’s infallibility; all options for guaranteeing state survival cannot be optimal at the same time, and if they were, how does one get chosen? The same open-endedness holds for South Korea, Taiwan, and other states. Last I checked, Taiwan not only was not building a nuclear arsenal but was deepening already very deep relations with China, its largest trading partner, through direct daily flights. Indeed, the indeterminacy of structural theories is also evident in disagreements over nuclear proliferation itself, with the diffusion of nuclear capabilities seen as stabilizing or highly destabilizing—depending on the eye of the beholder—leading to disparate advocacies of anything from *laissez faire* to military prevention as a tool of nuclear denial. Where one stands on this issue has little to do with the infallibility of any theory.

Probabilistic statements are as good as it gets in the social sciences, Ford’s frustration (and all of ours) notwithstanding. He further rightfully notes that even valuable theoretical insights will not “necessarily make current problems miraculously soluble with available policy tools.” This echoes the book’s caution that, even if powerful causal variables driving or discouraging proliferation could be identified, our limitations in manipulating and controlling these variables in a complex world, fertile

in unintended consequences, must be understood (p. 289). Furthermore, properly interpreting domestic models as filtering a wide-ranging set of domestic, regional, and global opportunities and constraints also requires tolerance for complexity. As Philip Tetlock's masterful treatise on expert political judgment and prediction suggests, parsimony can be the enemy of accuracy, a substantial liability in real-world forecasting.¹⁰ By contrast, identifying overstated causes, theoretical and ideological straightjackets, omitted variables, scope conditions, selection effects, and other limitations may provide a more solid foundation for crafting policy options than what Tetlock labels "snake oil" forecasting products. The analyst of nuclear proliferation must strike a balance between Occam's Razor and the Lorenz Attractor. The first offers hallucinations of simplicity; the latter burdens with images of chaos and unpredictability.

Even as a theory-bound effort, however, *Nuclear Logics* does not wholly shy away from policy recommendations—such as "policies that assume states as unified entities inexorably buffeted by changes in the balance of power, and that rely on coercion or inducements without considering domestic political landscapes, are less likely to succeed" (p. 290); military attacks "bring about... rallying-round-the-flag effects" (p. 290); and "widespread economic sanctions, indiscriminating blockades, and exclusion from membership in international institutions can sometimes help uncompromising leaders coalesce national opposition" (p. 291). Although domestic models may not capture all the correlates of nuclear preferences, they provide a systematic tool, a heuristic, a helpful shortcut, a discrete marker or rule-of-thumb for identifying competing motivations of leaders and constituencies in nuclear aspirant states. These models can explain why different domestic actors vary in their nuclear preferences, why nuclear policies within the same state may vary over time in tandem with the rough and tumble of domestic politics, and why different states vary in their commitments to increase information, transparency, and compliance with the nonproliferation regime. These premises help elaborate general prescriptive principles under the following rubrics: "rewarding natural constituencies of internationalizing models" (p. 293), "stripping autarkic or inward-looking regimes of the means to concentrate power" (p. 295), "crafting packages of sanctions and inducements that are sensitive to differences between energy-rich and

¹⁰ Philip E. Tetlock, *Expert Political Judgment: How Good Is It? How Can We Know?* (Princeton: Princeton University Press, 2005).

energy-poor targets” (p. 296), and “using democracy—where available—as an ally of denuclearization” (p. 297).¹¹

All these principles require far stronger coordinating and enforcement efforts by major powers, international institutions, and NGOs (pp. 30, 124, 264–65), as Choubey and Ford rightly emphasize. Stemming from their legitimate differences and distinct legal positions, the two disagree on policy implications related to Article VI of the NPT. Ford is disappointed with the characterization of “lack of progress” on Article VI and absence of full compliance in reducing nuclear arsenals. Though not a focal point of the book but in line with its core argument, I find that the failure of nuclear weapons states to make adequate progress on Article VI, a contractual obligation under the NPT, may indeed not be the main driver of nuclearization. Yet this failure both provides inward-looking proponents of such weapons worldwide with added pretexts and weakens domestic constituencies receptive to denuclearization and internationalization (p. 299). Finally, Ford proposes that internationalizing opponents of nuclear weapons must also pay the price of isolation when their inward-looking state leaders fail to comply with nonproliferation commitments. However, as a blanket statement of policy this may be misguided if isolation strengthens the ruling pro-nuclear camp and decimates its opposition. Both positive and negative incentives must be part of an effectively crafted package that entices and empowers internationalizing constituencies at the expense of their opponents.

In sum, this is not a negligible set of recommendations for a theoretical book, and indeed Ford finds most of them “sensible, as far as they go.”¹² Yet so much more remains to be done. One logical next step, already under way, will seek to build on the lessons learned here in an effort to improve our understanding of how international positive and negative inducements work in nuclear proliferation. Stay tuned.

¹¹ For an early effort, see Etel Solingen, “The New Multilateralism and Nonproliferation: Bringing Domestic Politics In,” *Global Governance* 1, no. 2 (May–August 1995): 205–27.

¹² See also *PS: Political Science & Politics* 41, no. 4 (October 2008): 989–90.

Author's Response:
**The Subject—Nuclear Weapons and Security in 21st Century Asia,
 not Nuclear Choices, Proliferation, or Nonproliferation Policy**

Muthiah Alagappa

My thanks to the reviewers for contributing to this roundtable. I would like to preface my response with two general points. First, the two books under review differ substantially in purpose and scope. *Nuclear Logics* seeks “to help understand why states seek or renounce nuclear weapons” (p. ix), focusing on non-nuclear East Asian and Middle Eastern states that seek or do not seek nuclear weapons. *The Long Shadow*, on the other hand, seeks “to develop a deep understanding in comparative perspective of the purposes and roles assigned to nuclear weapons in the security thinking and practice of relevant states and to explore their implications for regional security, stability, and conflict resolution” in a dramatically altered international security and nuclear environment with a focus on Asia (p. 22). The Asian security region is defined broadly to include Northeast, Southeast, and South Asia; the United States; Russia; Australia; and tentatively the Middle East. Inquiry in *The Long Shadow* is not limited to states that may or may not seek nuclear weapons. Importantly, the book investigates the nuclear roles and strategies of all states that possess nuclear weapons and of those non-nuclear weapons states that are allied with nuclear weapons states, as well as the acquisition prospects and the possible roles in which nonstate actors may employ nuclear weapons. Although informed by certain concepts and theories, *The Long Shadow* does not seek to test particular hypotheses or advance a causal explanation. The book is by design an empirical study to develop a firm foundation for subsequent conceptual and theoretical work.

Second, *The Long Shadow* is not about nonproliferation or disarmament. Although the findings of the study have implications for both issues and I do tease out some of these in my concluding chapters, a primary purpose of the study is to provide an alternative perspective to the nonproliferation and nuclear disarmament discourses that have tended to dominate discussion of nuclear weapons in the United States. There is little doubt that WMD proliferation continues to be a crucial security concern, and some believe that

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NOTE ∞ The author would like to thank Mark Borthwick, Charles Morrison, and James Wirtz for their comments on an earlier version of this response.

nuclear disarmament should be an urgent goal of humanity. These are not the only lenses through which to view nuclear weapons, however. A substantial number of states of all stripes continue to attach value to the security roles of their nuclear arsenals. The management and control of nuclear weapons requires that we understand the roles such weapons perform or are deemed to perform. The ethics of responsibility requires us to address the roles and implications of nuclear weapons in all their dimensions. Thus, a security perspective that attaches importance to but does not prejudice the salience of nuclear weapons in national security strategies intentionally girds inquiry in *The Long Shadow*. Taking seriously the security rationales advanced by nuclear weapons states, including the United States, does not imply uncritical acceptance of the party line.

It is thus unfortunate that concern with proliferation has dominated the reviews. An excessive focus on proliferation and a failure to recognize the substantial differences in the purpose and scope of the books under review have prevented reviewers (except for Christopher Ford) from direct and substantial engagement with the main propositions advanced in *The Long Shadow*. In fact, if a reader were only to rely on the reviews, he or she would be misinformed of the purpose and the key propositions advanced in the book.

In light of the above I will limit my response to a few specific points: the logic of zero; the United States and nuclear disarmament; nuclear weapons, security, and stability; and the supposedly “underwhelming” and “contradictory” nature of my proposal for a new nuclear order.

Logic of Zero

Deepti Choubey contends that the January 2007 op-ed essay by the “four horsemen”—George Shultz, Henry Kissinger, William Perry, and Sam Nunn—in the *Wall Street Journal* has altered the context for discussion of nuclear weapons and that if the trend continues, the long shadow of nuclear weapons will become shorter and lighter. She also claims to disagree with me on the role nuclear weapons can and should play in the medium to long term. Choubey misreads my purpose in discussing the roles of nuclear weapons in *The Long Shadow*. As a nonproliferation advocate, she may have a normative position on nuclear weapons. I do not. My purpose is to understand the roles assigned by states to nuclear weapons rather than to advocate any role.

The claim that movement toward and realization of the “logic of zero” may lighten the impact of nuclear weapons is a no-brainer if indeed there is quick, dramatic, and verifiable movement toward complete nuclear disarmament

with international agencies that have effective powers to regulate and enforce an agreement as well as to deal with violators. Even in such a scenario nuclear weapons would persist for decades. The four horsemen envisage that nuclear weapons would be around for two to four decades before achieving zero. The logic of zero and the paths that have been advocated to achieve it beg moral, security, strategic, and feasibility questions while demanding a level of international cooperation hitherto unrealized in the areas of arms control and disarmament.

It would take me too far afield to critique the logic of zero here. Suffice it to say that arms, including nuclear weapons, are reflective of the state of international security or insecurity. Should the international security environment improve, the salience of arms will decline. Nuclear weapons declined in salience after the termination of the Cold War not because of any far-reaching arms control or disarmament agreement but because of a fundamental change in the security situation. It will be more fruitful to address security situations that give rise to such armaments rather than to simply try to eliminate armaments. Arms control and disarmament measures can aid in improving security situations by building confidence and enhancing stability, but we should not lose sight of the fact that such measures are a means to an end rather than an end in themselves.


The logic of zero appears to define and address a problem that was central during the Cold War. Further, much of the related discussion is U.S.-centric, focusing on how nonproliferation and disarmament can serve U.S. interests and how and why Washington must take the lead in these endeavors. It accords little attention to the security and strategic concerns that underpin the nuclear arsenals, aspirations, and policies of other states (including Russia, China, India, Pakistan, Israel, North Korea, Iran, Japan, South Korea, and Taiwan) and nonstate actors, especially those that fear the United States. A central purpose of *The Long Shadow* is to highlight these concerns, the security dynamics that flow from them, and the salience or otherwise of nuclear weapons. Nonproliferation and nuclear disarmament advocates can benefit from a close reading of the book. The content and tone of the present discourse and programs associated with the logic of zero suggest that some people in the United States have seen the light and others are obligated to follow. Even in the United States, as the next section will suggest, the disarmament debate has not been fully joined. Thus, I am not convinced that publication of the op-ed essay by former senior U.S. officials has altered the context for discussion of the roles of nuclear weapons. The

context is defined by the strategic circumstances and security concerns of the countries that possess or seek a nuclear capability.

The United States and Nuclear Disarmament

Ford and Choubey favorably cite James Wirtz's assertion in chapter 3 of *The Long Shadow*, which examines U.S. nuclear policy, that disarmament has become a dominant theme in U.S. nuclear policy and that "marginalization of nuclear weapons in U.S. defense policy is robust" (pp. 128–29). Ford goes on to state that "the United States seems to care so little about nuclear weapons today that it is willing neither to adapt its nuclear posture to post–Cold War roles nor even, thus far, to take steps necessary in order to maintain a credible nuclear force structure of any sort over the long term." That the salience of nuclear weapons in U.S. security policy and strategy has declined compared to the Cold War era, that the U.S. nuclear arsenal has suffered massive reductions, that the U.S. Congress has not funded new systems, that nuclear testing has been discontinued, and that the 2002 Nuclear Posture Review (NPR) has not gained political support cannot be disputed. I acknowledge these developments in my analysis. It is a fact, however, that the United States still possesses a large and sophisticated nuclear arsenal and is pursuing strategic defense and counterforce capabilities. Further, the present U.S. strategic posture has not been created by conscious policy choices but simply by the lack of a coherent nuclear policy.

There is as yet no consensus in the United States on nuclear policy, strategy, and posture. Although the 2002 NPR has not gained political support in the U.S. Congress, no significant incumbent political leader or official has argued the case for elimination of the U.S. nuclear arsenal. On the contrary, Defense Secretary Robert Gates has made a strong case for sustaining a robust nuclear deterrent force to "hedge against a dangerous and unpredictable world."¹ Furthermore, he has indicated that the Defense Department is taking several measures to address concerns related to nuclear policy, oversight, and command structure. As I suggest in *The Long Shadow*, and as Ford notes in his review, although one may disagree with the conclusions of the 2002 NPR, the questions and problems raised in that Review will not go away. I expect the nuclear debate to be fully joined and to gain momentum as nonproliferation and disarmament advocates push their agenda and as political leaders, defense

¹ Robert M. Gates (speech delivered to the Carnegie Endowment for International Peace, Washington, D.C., October 28, 2008)  <http://www.defenselink.mil/speeches/speech.aspx?speechid=1305>.

officials, and policy analysts are compelled to grapple with the problem of U.S. nuclear policy in the 21st century. A prolonged discussion and debate is likely to ensue, and the matter is unlikely to be settled once and for all in favor of complete nuclear disarmament. Those responsible for the security and defense of the nation, such as Defense Secretary Gates, who will continue in the incoming Barack Obama administration, will worry about contingencies and would not accept zero—except possibly as a distant goal. The United States will want to preserve autonomy and maintain certain capabilities. Further, the goals of nonproliferation and disarmament would have to compete with other goals and priorities of the United States. Although there may be further reductions, the United States would continue to maintain a safe and viable nuclear arsenal for the foreseeable future. It is important to understand the roles assigned to nuclear weapons not only by the United States but also by other countries and to explore the implications that flow from these roles. Further, unexpected political and security developments (Wirtz refers to some possible ones) could well increase the salience of nuclear weapons. The unpredictable nature of international politics has a nasty way of surprising and upsetting the best-laid priorities and plans.

Security and Stability

Choubey contests my conclusion that “although there could be destabilizing consequences, on net, nuclear weapons reinforce deterrence dominance and enhance national security and regional stability in the Asian security region” (p. 512). She asks: “Does this assessment hold up against troubling developments occurring between East Asia and the Middle East, such as the suspected nuclear cooperation between North Korea and Syria (and possibly Iran)?” Choubey seems to ignore my qualification and also does not indicate how nuclear cooperation between North Korea, Syria, and Iran has or would undermine the stability arguments advanced in the book. The country-chapter authors and I discuss the possible consequences of a nuclear North Korea and Iran in some detail. My conclusions are less alarming than those of professional advocates who naturally tend to paint a catastrophic picture, but clearly there are risks and dangers arising both from nuclear weapons in the hands of failing states and from the proliferation of nuclear weapons to nonstate actors. The book discusses the former in some depth and includes a separate chapter on the latter topic. Again the findings are less alarming than some may wish them to be.

Elements of a New Nuclear Order

Ford posits that my recommendations for a new nuclear order are “somewhat underwhelming,” as they do not depart “too much from the existing policies of the United States,” with the arguable exception of a couple of points. The issue, however, is not if and how the proposed elements differ from present U.S. policy. The key question is whether the proposed elements of a new order cover the crucial issues. If not, what are the other issues that must be addressed? The five elements I identify—sustaining deterrence in a condition of asymmetry, accommodating new nuclear weapons states, addressing the security concerns of potential proliferator states, preventing proliferation to nonstate actors, and supporting the peaceful use of nuclear energy—must form part of a new nuclear order. The United States, the International Atomic Energy Agency, and the United Nations, along with other actors, have been addressing some of these elements. Recognizing that a master blueprint approach is unlikely to muster much international political support, I envision a piecemeal approach that builds on relevant existing policies and frameworks.

Choubey questions the wisdom of fashioning a new nuclear order based on a country-specific approach—i.e., an order that includes India without establishing clear criteria for dealing with all nuclear weapons states that have not signed the Nuclear Non-Proliferation Treaty (NPT), including Israel and Pakistan. She also argues that incorporating new nuclear weapons states devalues the benefits of the NPT for non-nuclear weapons states. I do not argue for the exclusion of Pakistan and Israel from the new nuclear order but argue the case for a country-specific approach. I state: “In due course, country-specific arrangements [based on responsible behavior] would have to be worked out for Pakistan and Israel as well” (p. 536). As the attempt to reform the UN Security Council illustrates, it is almost impossible to reform an international security regime or organization with exclusive membership using broadly applicable criteria. Political and strategic considerations often outweigh such criteria. These considerations intrude on membership issues even in a broad multilateral organization like the World Trade Organization. Trying to establish common criteria for broadening the nuclear club could in fact bring about the collapse of the NPT regime.

Conclusion

I do not find any of the reviews persuasive enough to warrant reconsideration of the conclusions reached in *The Long Shadow*. In fact,

the reviewers underscore the need for deeper investigation of the issues addressed in that book. We cannot wish away nuclear weapons or assume that arguments that seem persuasive in certain U.S. circles will gain traction elsewhere. As nuclear weapons are highly likely to persist and play important roles in national security strategies for the foreseeable future, it is necessary to investigate how we can manage nuclear weapons in a new era, minimizing the negative consequences while harnessing their still useful roles. Considerable work is required both to understand the new roles that nuclear weapons do or may play and to develop ideas, concepts, and theories to manage such weapons in a strategic and nuclear environment that is dramatically different from that of the Cold War.

In this regard, a major conclusion of *The Long Shadow* is that deterrence is likely to continue to be the dominant role and strategy for the employment of nuclear weapons for the foreseeable future. Deterrence today, however, operates in dramatically different situations that are often complex, multisided, and largely asymmetrical and with small nuclear forces. Deterrence is further complicated by the development of offensive and strategic defense capabilities. What does deterrence mean in this new context? What are the force levels required for effective deterrence? How can deterrence stability be enhanced? How can crisis situations be prevented and managed? How can extended deterrence be made more effective and credible? These and related questions must be addressed. Likewise, more in-depth work is required on the second major conclusion of the study that nuclear weapons have, on net, enhanced security and stability in the Asian security region. Ford concurs and urges the building of “new conceptual models that will enable us to live in the emerging world described in *The Long Shadow*—one in which nuclear weapons are not going away and in which they can actually play useful roles in stabilizing the security environment, provided they are not disseminated too widely.” It is also important to develop a knowledge community in Asia, the United States, and elsewhere that can undertake such work and facilitate cross-country and regional dialogue on such matters. ◆